


FEB 05 2007

<b>TRANSMITTAL OF APPEAL BRIEF (Large Entity)</b>					Docket No. US 010632
In Re Application Of: Michael A. Epstein					
Application No. 10/028,382	Filing Date December 21, 2001	Examiner Kevin R. Schubert	Customer No. 20987	Group Art Unit 2137	Confirmation No. 4889
Invention: SYNCHRONIZING SOURCE AND DESTINATION SYSTEMS VIA PARALLEL HASH VALUE DETERMINATIONS					
<u>COMMISSIONER FOR PATENTS:</u>  Transmitted herewith is the Appeal Brief in this application, with respect to the Notice of Appeal filed on: October 4, 2006  The fee for filing this Appeal Brief is:  <input type="checkbox"/> A check in the amount of the fee is enclosed.  <input type="checkbox"/> The Director has already been authorized to charge fees in this application to a Deposit Account.  <input checked="" type="checkbox"/> The Director is hereby authorized to charge any fees which may be required, or credit any overpayment to Deposit Account No. <u>50-0238</u> I have enclosed a duplicate copy of this sheet.  <input type="checkbox"/> Payment by credit card. Form PTO-2038 is attached.  <b>WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.</b>  <div style="text-align: center; margin-top: 20px;"> _____ Signature</div> <div style="margin-top: 10px;">William S. Francos, Esquire (Reg. No. 38,456) VOLENTINE FRANCOS &amp; WHITT, P.L.L.C. One Freedom Square 11951 Freedom Drive, Suite 1260 Reston, VA 20190</div> <div style="text-align: right; margin-top: 10px;">Dated: February 5, 2007</div>					
<div style="float: left; width: 60%;">cc:</div> <div style="float: right; width: 35%; border: 1px solid black; padding: 5px;"><div style="font-size: small;">I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)] on</div><div style="border-top: 1px solid black; margin-top: 5px; text-align: center;">(Date)</div><div style="border-top: 1px solid black; margin-top: 5px; text-align: center;">Signature of Person Mailing Correspondence</div><div style="border-top: 1px solid black; margin-top: 5px; text-align: center;">Typed or Printed Name of Person Mailing Correspondence</div></div> <div style="clear: both;"></div>					

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FEB 05 2007

Appl. No. 10/028,382  
APPEAL BRIEF

IN THE UNITED STATES  
PATENT AND TRADEMARK OFFICE

Appl. No: 10/028,382

Applicant(s): Michael A. Epstein

Filed: December 21, 2001

TC/A.U.: 2100/2137

Examiner: Kevin R. Schubert

Atty. Docket: US 010632

Title: SYNCHRONIZING SOURCE AND DESTINATION  
SYSTEMS VIA PARALLEL HASH VALUE DETERMINATIONS

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On: 05 February 2007

By:   
Judith Riddell

APPEAL BRIEF

Honorable Assistant Commissioner of Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In connection with the Notice of Appeal dated October 4, 2006, Applicants  
provide the following Appeal Brief in the above captioned application.

PCIP.352

Attorney Docket No. US 010632

Appl. No. 10/028,382  
APPEAL BRIEF

**TABLE OF CASES**

1. **W.L. Gore & Associates, Inc. v. Garlock, Inc.**, 220 USPQ 303 (CAFC 1983).
2. **In re Paulsen**, 30 F.3d 1475, 31 USPQ2d 1671 (Fed. Cir. 1994)
3. **In re Spada**, 911 F.2d 705, 15 USPQ2d 1655 (Fed. Cir. 1990).
4. **Minnesota Min. & Mfg. Co. v. Johnson & Johnson Orthopaedics, Inc.**, 976 F.2d 1559, 24 USPQ2d 1321 (Fed. Cir. 1992).
5. **Scripps Clinic & Res. Found. v. Genentech, Inc.**, 927 F.2d 1565, 18 USPQ2d 1001 (Fed. Cir. 1991).

Appl. No. 10/028,382  
APPEAL BRIEF

### 1. Real Party in Interest

The real party in interest as assignee of the entire right and title to the invention described in the present application is Koninklijke Philips N.V. having a principle place of business at Groenewoudseweg 2, Eindhoven, The Netherlands.

### 2. Related Appeals and Interferences

There are no known related appeals or interferences at this time.

### 3. Status of the Claims

Claims 1-6 are pending in the present application. All have been finally rejected. The rejected claims 1-6 are duplicated in the Appendix.

### 4. Status of Amendments

A final Office Action on the merits was mailed on July 7, 2006. A Reply to the Final Office Action was filed on September 7, 2006 traversing the rejections of the final Office Action. A Notice of Appeal was filed on October 4, 2006.

### 5. Summary of the Claimed Subject Matter<sup>1</sup>

In accordance with an embodiment, a hashing system (100) includes a plurality of hash devices. Each hash device 110 of the plurality of hash devices being configured to receive a sequence of data values and apply a hash function to the received sequence of data values when enabled. The hash function is the same in said each hash device. The system (e.g., 100) also includes at least one comparator (e.g., 120), operably coupled to the plurality of hash devices (e.g., 110), that is configured to compare an output of each hash device to a source hash value, to facilitate a verification of the sequence of data values. (Kindly refer to claim 1, Fig. 1 and page 5, line 15-page 6, line 2 of the filed application.)

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<sup>1</sup> In the description to follow, citations to various reference numerals, drawings and corresponding text in the specification are provided solely to comply with Patent Office Rules. It is emphasized that these reference numerals, drawings and text are representative in nature, and in not any way limiting of the true scope of the claims. It would therefore be improper to import any meaning into any of the claims simply on the basis of illustrative language that is provided here only under obligation to satisfy Patent Office rules for maintaining an Appeal.

**Appl. No. 10/028,382**  
**APPEAL BRIEF**

In another embodiment, a method of determining a correspondence between a sequence of received data values (Din) and a source, based on a source hash value that corresponds to a subset of source data values includes: selectively enabling one or more hash elements of a plurality of hash elements (e.g., 110, e.g., 230) upon the occurrence of each data value of the sequence of received data values, each of the hash elements comprising a hash function. The method also include hashing each data value with the same said hash function to produce a determined hash value corresponding to each of the one or more hash elements (e.g., 110, e.g., 245), and comparing each determined hash value (260) to the source hash value to determine the correspondence between the sequence of received data values and the source. (Kindly refer to claim 4; Figs. 1 and 2; and page 4, line 15 through page 7, line 6 of the filed application.)

**6. Grounds of Rejection to be Reviewed on Appeal**

The issues in the present matter are whether:

I. Claims 1-6 are properly rejected under 35 U.S.C. § 102(b) in view of *Akiyama* (EP Patent Application 1041767 A2); and

II. Claims 1-6 are properly rejected under 35 U.S.C. § 102(b) in view of *Davis* (US Patent 5,907,619).

**7. Argument**

In this portion of the Appeal Brief, arguments are provided. Notably, wherever applicable Applicants maintain previous arguments for patentability provided in response to Office Actions.

At the outset Applicants rely at least on the following standards with regard to proper rejections under 35 U.S.C. § 102. Notably, a proper rejection of a claim under 35 U.S.C. § 102 requires that a single prior art reference disclose each element of the claim. *See, e.g., W.L. Gore & Assoc., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303, 313 (Fed. Cir. 1983). Anticipation requires that each and every element of the claimed invention be disclosed in a single prior art reference. *See, e.g., In re Paulsen*, 30 F.3d 1475, 31 USPQ2d 1671 (Fed. Cir. 1994); *In re Spada*, 911 F.2d 705,

Appl. No. 10/028,382  
APPEAL BRIEF

15 USPQ2d 1655 (Fed. Cir. 1990). Alternatively, anticipation requires that each and every element of the claimed invention be embodied in a single prior art device or practice. *See, e.g., Minnesota Min. & Mfg. Co. v. Johnson & Johnson Orthopaedics, Inc.*, 976 F.2d 1559, 24 USPQ2d 1321 (Fed. Cir. 1992). For anticipation, there must be no difference between the claimed invention and the reference disclosure, as viewed by a person of ordinary skill in the field of the invention. *See, e.g., Scripps Clinic & Res. Found. v. Genentech, Inc.*, 927 F.2d 1565, 18 USPQ2d 1001 (Fed. Cir. 1991).

**I. Rejection of Claims 1-6 rejected under 35 U.S.C. § 102(b) in view of *Akiyama*.**

**a. *Akiyama* does not disclose that the hash function is the same**

Claim 1 is drawn to a hashing system and includes:

*“...a plurality of hash devices,  
each hash device of the plurality of hash devices being configured to receive a sequence of data values and apply a hash function to the received sequence of data values when enabled, said hash function being the same in said each hash device;...”*

Claim 4 is drawn to a method of determining a correspondence between a sequence of received data values and a source and comprises:

*“...selectively enabling one or more hash elements of a plurality of hash elements upon the occurrence of each data value of the sequence of received data values, each of the hash elements comprising a hash function;*

*hashing each data value with the same said hash function to produce a determined hash value corresponding to each of the one or more hash elements...”*

The Office Action made final and dated July 7, 2006 asserts that the reference to *Akiyama* discloses that the hash function's being the same in each hash device in paragraphs [0029], [0050] and Figs. 1 and 3A. Moreover, the Examiner asserts that the “Fig. 3A illustrates the hashing systems disclosed by *Akiyama*, wherein each hashing unit (2 of Fig. 3A) relies on the same hashing function (22 of Fig. 3A).” In the Advisory

Appl No. 10/028,382  
APPEAL BRIEF

Action, the Examiner asserts that the "...Final Office Action mailed on 07/07/2006 provides a detailed description as to how Akiyama discloses a single one-way function 22 is used with a different key for each piece of data that is being hashed as disclosed in paragraphs [0038] through [0042]. Also, paragraph [0025] states 'the hash units perform processing corresponding to a known hash function' therefore Akiyama again discloses a single hash function." (Kindly refer to pages 2 and 4 of the July, 2006 Office Action and to the Advisory Action).

At the outset, Applicants respectfully submit that the Examiner has provided no support for the position that the term 'a known hash function' is properly interpreted as 'a single known hash function.' Applicants respectfully request that such basis in law be provided.

The above notwithstanding, Applicants respectfully submit that the Examiner's interpretations of the reference to *Akiyama* are improper. Initially, Applicants note that the reference does not explicitly disclose that one and the same hash function is used. Rather, the reference unequivocally describes the hash function the contrary. To wit, at paragraphs [0014] and [0019], the reference explicitly discloses the use of different one-way functions to each data.

In rebuttal to the Examiner's assertions regarding the teachings of paragraphs [0029], [0050] and Figs. 1 and 3A of the reference to *Akiyama*, Applicants submit that the noted portions of the reference do not clearly state that the hash functions are the same. Fig. 1 includes hash units 2 and hash functions 22 having the same reference characters, but there is no disclosure that the reference characters are the same. Applicants have not uncovered, nor has the Examiner cited the clear disclosure in *Akiyama* of the use of the same hash-function as claimed.

Furthermore, Applicants respectfully submit that the Examiner's assertion that "Fig. 3A illustrates the hashing systems disclosed by Akiyama, wherein each hashing unit (2 of Fig. 3A) relies on the same hashing function (22 of Fig. 3A)" is unfounded. There is no teaching that the hashing units 2 of Fig. 3A rely on the same hashing function. Fig. 3A is merely a special case where  $n=3$  in Fig. 2A.

Appl. No. 10/028,382  
APPEAL BRIEF

Finally, Applicants submit that while the reference describes a one-way hash function (e.g., paragraph [0038]), this does not equate to the disclosure of one and the same hash function as claimed. To this end, Applicants submit that although the reference at time describes 'a' hash function in conjunction with 'a' hash unit, there is only ever the description of different hash functions' being used; and not the disclosure of a single hash-function as claimed. Thus, Applicants submit that a fair read of the disclosure *Akiyama* would be that each unit may include a hash function, but that the hash functions of each unit are different.

For at least the reasons set forth above, Applicants respectfully submit that claims 1 and 4 are patentable over the applied art. In addition, claims 2,3 and 5, 6, which depend from claims 1 and 4, respectively, are patentable over the applied art at least because of their dependence thereon.

**II. Rejection of Claims 1-6 rejected under 35 U.S.C. § 102(b) in view of *Davis*.**

**a. *Davis* does not disclose that the hash function is the same**

As noted above, claim 1 features "...said hash function being the same in said each hash device;..." and claim 4 features *hashing each data value with the same said hash function ...*

The Office Action turns to column 5, lines 21-28 of *Davis*, and the Advisory Action notes asserts that because the reference discloses that different hash functions may be used, that the reference discloses that the use of the same hash function is disclosed. Applicants respectfully disagree.

At the outset, Applicants have not found the disclosure in *Davis*, nor has the Examiner cited in where *Davis* discloses the use of the same hash functions as claimed. Therefore a prima facie case of anticipation has not been made.

As noted previously, in order to anticipate a claim, a single prior art reference disclose each element of the claim. Therefore, the reference must disclose without ambiguity the claimed feature. At the portion relied upon in the Office Action, the reference states: "Thereafter, each set of coefficients is run through a hashing function



FEB 05 2007

Appl. No. 10/028,382  
APPEAL BRIEF

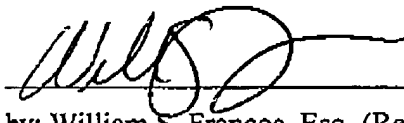
135<sub>1</sub>- 135<sub>4</sub> to provide hash results 136<sub>1</sub>-136<sub>4</sub>, respectively.” The reference does not disclose each set of coefficients is run through the same hashing function 135<sub>1</sub>- 135<sub>4</sub>, as the Examiner implies. The reference then states that different hash functions may be used and provides a listing of certain illustrative functions. However, because *Davis* disclose a listing of illustrative functions and lacks of disclosure of the use of the same hashing function, Applicants submit that a fair interpretation of the noted portions of *Davis* is that by ‘different hashing functions’ *Davis* means ‘various hashing functions.’

For at least the reasons set forth above, Applicants respectfully submit that claims 1 and 4 are patentable over the applied art. In addition, claims 2,3 and 5, 6, which depend from claims 1 and 4, respectively, are patentable over the applied art at least because of their dependence thereon.

#### 8. Conclusion

In view of the foregoing, applicant(s) respectfully request(s): the withdrawal of all objections and rejections of record; the allowance of all the pending claims; and the holding of the application in condition for allowance.

Respectfully submitted on behalf of:  
Koninklijke Philips N.V.



by: William S. Francos, Esq. (Reg. No. 38,456)

February 5, 2007  
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Appl. No. 10/028,382  
APPEAL BRIEF

Appendix  
Claims on Appeal

Appl. No. 10/028,382  
APPEAL BRIEF

Claims on Appeal:

1. A hashing system, comprising:  
a plurality of hash devices,  
each hash device of the plurality of hash devices being configured to receive a sequence of data values and apply a hash function to the received sequence of data values when enabled, said hash function being the same in said each hash device;  
and  
at least one comparator, operably coupled to the plurality of has devices, that is configured to compare an output of each hash device to a source hash value, to facilitate a verification of the sequence of data values.
2. The hashing system of claim 1, wherein  
each device is enabled sequentially.
3. The hashing system of claim 1, wherein  
said each hash device is enabled to receive and process K data values, and  
the plurality of hash devices corresponds to K hash devices.
4. A method of determining a correspondence between a sequence of received data values and a source, based on a source hash value that corresponds to a subset of source data values, the method comprising:  
selectively enabling one or more hash elements of a plurality of hash elements upon the occurrence of each data value of the sequence of received data values, each of the hash elements comprising a hash function;  
hashing each data value with the same said hash function to produce a determined hash value corresponding to each of the one or more hash elements, and  
comparing each determined hash value to the source hash value to determine the correspondence between the sequence of received data values and the source.

Appl. No. 10/028,382  
APPEAL BRIEF

5. The method of claim 4, wherein  
selectively enabling the one or more hash elements includes sequentially enabling each of the one or more hash elements.
6. The method of claim 4,  
further comprising enabling each of the hash elements to receive and process K data values, and the plurality of hash elements correspond to K hash elements.

Appl. No. 09/928,553  
Appeal Brief

Page 12 of 13

Appendix

Evidence (None)

PCIP.352

Attorney Docket No. US 010632

Appl. No. 09/928,553  
Appeal Brief

Page 13 of 13

Appendix

Related Proceedings (None)

PCIP.352

Attorney Docket No. US 010632